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Notice of Allowability	Application No.	Applicant(s)	
	10/707,576	SHI ET AL.	
	Examiner	Art Unit	
	Hoan H. Tran	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to amendment filed 07/15/2005.
2. The allowed claim(s) is/are 1-38.
3. The drawings filed on 22 December 2003 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None
 of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the Claims:

- Claim 26, line 5, "of a second charging" has been deleted.
- Claim 26, line 6, "device" has been deleted.

Allowable Subject Matter

2. Claims 1-38 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Claims 1-13

None of the prior art of record teaches or suggests a method for measuring and setting grid voltages in an image forming apparatus comprising the steps of setting a first charging device of a first image forming station to a first voltage level and setting a second charging device of the first image forming station to be off, charge a charge-retentive surface with the first charging device set at the first voltage level, measuring and storing the charge imparted to the charge-retentive surface, and repeating the setting, charging, measuring and storing steps for the first charging device for at least one additional level, and determining at least one parameter of

the first charging device based on the stored measured charge values for the first charging device for each voltage level.

Claims 14-20

None of the prior art of record teaches or suggests a method for measuring and setting DC grid voltages in an image forming device comprising the steps of setting a first DC charging device at a first image forming station to a first voltage level and setting an AC charging device at the first image forming station to be off, charge a charge-retentive surface with the first charging device set at the first voltage level, measuring and storing the charge imparted to the charge-retentive surface, and repeating the setting, charging, measuring and storing steps for the first DC charging device for at least one additional level, and determining at least one parameter of the first DC charging device based on the stored measured charge values for the first charging device.

Claim 21

None of the prior art of record teaches or suggests a method for determining operating voltages in a split recharge image forming system having a plurality of image forming stations, each station having a DC charging device and an AC charging device, the method comprising the steps of determining a combined target voltage level to be imparted on a charge-retentive surface during image formation by each DC charging device and AC charging device in combination, based on at least a determined DC grid operating voltage, and at least one determined DC parameter, and adjusting, for each image forming station that has a measured charge that differs from a target voltage level by more than a determined amount, the charge level of the AC charging device for that image forming station.

Claims 22-25

None of the prior art of record teaches or suggests a charge parameter determining system usable to measure and set operating voltages in a split recharge image forming apparatus that has a plurality of image forming stations, each image forming station having a first charging device, a second charging device, a voltage sensing device, the system comprising a grid voltage determining circuit, routine or application that determines at least one grid voltage for each first charging device and a combined voltage level, and a voltage adjusting circuit, routine or application which adjusts the grid voltage level of the second charging device to maintain the target voltage level at each image forming station.

Claims 26-38

None of the prior art of record teaches or suggests a computer-readable storage medium containing instructions for measuring and setting grid voltages in an image forming device comprising instructions for setting a first charging device of a first image forming station to a first voltage level and setting a second charging device of the first image forming station to be off, instructions for charging a charge-retentive surface with the first charging device set at the first voltage level, instructions for measuring and storing the charge imparted to the charge-retentive surface, and instructions for repeating the setting, charging, measuring and storing steps for the first charging device for at least one additional level, and instructions for determining at least one parameter of the first charging device based on the stored measured charge values for the first charging device for each voltage level.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoan H. Tran whose telephone number is (571) 272-2141. The examiner can normally be reached from 8:30 AM - 5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Arthur Grimley can be reached at (571) 272-2136. The central office fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HHT
August 22, 2005

HOAN TRAN
PRIMARY EXAMINER